Don CHANDLER et al.

Application No.: 10/185,869

IN THE CLAIMS

Claims 1 - 114 (cancelled)

Claims 115 – 143 (cancelled)

144. (currently amended) An array of biolayers comprising one or more bioactive molecules, the array

provided by microdispensing a controlled volume of liquid, including one or more bioactive molecules,

onto a substantially planar surface to form an array of biolayers where each biolayer has a defined

perimeter separate from each other biolayer in the array.

145. (previously added) The array of claim 144 in which the microdispensing step comprises

positioning over the substantially planar surface a needle tip on which tip a drop o f liquid is or is then

partially formed, contacting the planar surface with the partially formed drop, and retracting the needle tip

such that a controlled volume of liquid less than that of the partially formed drop remains on the

substantially planar surface.

146. (previously added) The array of claim 144 in which the array of biolayers is arranged in a

horizontal direction.

147. (previously added) The array of claim 144 in which the array of biolayers in arranged in a

horizontal direction and a lateral direction.

148. (previously added) The array of claim in which the one or more bioactive molecules include

DNA, RNA, or a mixture thereof.

149. (previously added) The array of claim 144 in which the one or more bioactive molecules include

a single-stranded polynucleotide.

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150. (previously added) The array of claim 144 in which the one or more bioactive molecules include polypeptides, proteins, glycoproteins, or mixtures thereof.

151. (previously added) The array of claim 144 in which the substantially planar surface is that of a biosensing device.